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Does Compensation Status Influence Treatment Participation and Course of Recovery from Post-Traumatic Stress Disorder?

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We reviewed the empirical literature to examine how seeking compensation and/or being awarded compensation for post-traumatic stress disorder-related disability are associated with participation in mental health treatment and course of recovery. The search for relevant literature was conducted using the PubMed, PsycINFO, Medline, and PILOTS databases and yielded seven studies on veterans and five on motor vehicle accident survivors. The literature indicates that veterans who are seeking or have been awarded compensation participate in treatment at similar or higher rates than do their non-compensation-seeking counterparts. Veteran treatment outcome studies produced either null or mixed findings, with no consistent evidence that compensation-seeking predicts worse outcomes. Studies of motor vehicle accident survivors found no association between compensation status and course of recovery. Recommendations to strengthen future research in this area are provided, including using clear and consistent definitions of compensation status that differentiate compensation-seeking status from award status.

Introduction

Post-traumatic stress disorder (PTSD) is the most common mental health disorder for which veterans receive disability compensation. Between fiscal years 1999 and 2004, PTSD compensation benefits payments increased by ~150%,[1] exacerbating existing concern that obtaining disability compensation may provide an incentive for veterans to exaggerate symptoms and/or to remain ill.[2,3] Similarly, there is concern that PTSD treatment participation may be influenced by compensation-seeking. If a primary impetus for seeking treatment for PTSD is supporting a disability claim, there would be little motivation to improve or remain in treatment once benefits are awarded. Weaker outcomes found in treatment studies of veterans with chronic PTSD (relative to PTSD civilian samples)[4] have been attributed to the effects of compensation-seeking by some researchers.[2]

An analysis cited in the Veterans Affairs (VA) Office of the Inspector General (OIG) report of a convenience sample of 92 PTSD disability claims has heightened existing concern about the impact of compensation-seeking on treatment participation.[1] Among the 92 claimants, 39% reduced their use of mental health treatment after receiving 100% service-connected disability. Despite considerable concern that veterans with PTSD might exhibit little or no improvement from mental health treatment due to seeking secondary gains, there has not been a synthesis of the literature on how compensation-seeking is related to recovery in veterans. Therefore, it is unclear whether the finding cited in the OIG report is supported by the more rigorous scientific literature.

To address this gap in the literature, the present review synthesizes the available literature on compensation, treatment participation, and recovery. The existing literature is based on two populations, veterans and motor vehicle accident (MVA) survivors seeking compensation for PTSD. Although there are important differences across these compensation systems, both involve populations that may be motivated to seek financial compensation for PTSD. Compensation-seeking in these systems is expected to have similar effects on PTSD symptom course and treatment participation. Therefore, studies of MVA survivors were considered relevant to this review. Specifically, this review addresses the following three questions: (1) does utilization of mental health treatment among veterans vary as a function of compensation status? (2) Does PTSD symptom course vary by compensation status among veterans who seek PTSD treatment? (3) Does PTSD symptom course vary by compensation status among MVA survivors?

Methods

The search for relevant literature was conducted through April 2006 using several databases, including PubMed, PsycINFO, Medline, and PILOTS (an electronic index of the worldwide literature on the mental health effects of exposure to traumatic events). The search terms included the combinations of the keywords compensation, service connection, and litigation, with PTSD. This search yielded a total of 214 abstracts on PTSD, health care use, and symptom course, which were reviewed to assess whether the manuscripts also examined compensation status. Fifty-seven articles met initial inclusion criteria. At this stage of the review process, authors who conducted relevant research were contacted to inquire about conference presentations given in the past that were relevant to our review. The final sample was selected depending on whether a study examined the longitudinal effects of compensation-seeking on PTSD symptom course and/or health care use and distinguished compensation status from award status. The final review yielded 12 studies: 7 on veterans and 5 on MVA survivors (Table I).

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TABLE I

DIFFERENCES IN HEALTH CARE UTILIZATION AND SYMPTOM COURSE BY COMPENSATION-SEEKING STATUS

Study	Sample	*N*	CS versus NCS	Pending versus Settled	Awarded versus Denied
Healthcare utilization among veterans:					
Elhai et al.[5]	Veterans	87 (58 CS, 29 NCS)	No difference		
Grubaugh et al.[6]	Veterans	52 (35 CS, 17 NCS)	No difference		
Spoont et al.[8]	Veterans	771 (452 awarded, 319 denied)			Awarded used more care than denied postsettlement
Sayer et al.[9]	Veterans	102 (61 awarded, 41 denied)			Mental health utilization increased only among awarded group
Symptom course (improvement over time):					
Blanchard et al.[13]	MVA	132 (18 settled, 49 pending, 65 NCS)	Rate of improvement is the same for CS and NCS	No difference	
Bryant and Harvey[14]	MVA	106 (20 settled, 73 pending, 13 NCS)	Rate of improvement is the same for CS and NCS	No difference	
DeViva and Bloem[11]	Veterans	141 (102 CS, 39 NCS)	No difference		
Fontana and Rosenheck[10]	Veterans	553 outpatients (532 CS, 21 NCS)	Same or better improvement among CS than NCS		
Fontana and Rosenheck[10]	Veterans	455 inpatients (381 CS, 74 NCS)	Less improvement among CS than NCS		
Solomon et al.[12]	Veterans	171 (98 CS, 73 NCS)	More PTSD among CS than NCS, but rate of improvement looks similar		
Taylor et al.[15]	MVA	50 patients in group CBT (30 good outcome, 20 partial response)	No difference		
PTSD Prevalence (2 or more time points):					
Ehlers et al.[17]	MVA	967 (Ns by compensation status not reported)	More PTSD among CS than NCS	More PTSD among those with pending claims than those with settled claims	
Mayou et al.[16]	MVA	64 (5 pending, 53 awarded, 6 dropped claims)	More PTSD among CS than NCS	More PTSD among those with pending claims than those with settled claims	

CS, Compensation seeking (pending or awarded); NCS, not compensation seeking; Pending, compensation seeking with a pending claim; Settled, compensation seeking with a settled claim that was either awarded or denied; Awarded, compensation seeking with an awarded claim; Denied, compensation seeking with a settled claim that was denied; Dropped, dropped claim.

Construct Definitions

The most important step in the process of reviewing the literature was to identify a clear framework. This was a challenging task since the existing literature on compensation status for PTSD is fragmented and does not use consistent terminology. The most significant limitation in this literature is that most studies do not distinguish clearly between compensation-seeking status (whether people were trying to get compensation) and award status (whether people received compensation). Several definitions were formulated to structure this review. The term "compensation status" encompasses compensation-seeking and award status. "Compensation-seeking" refers to whether a person is currently or was previously involved in seeking compensation. The term "award status" is applied only to those who are already involved in the process of seeking compensation and refers to whether a person's claim is still pending, was awarded, or denied.

Compensation-Seeking versus Not Compensation-Seeking

Much of the veteran literature in this area only compares compensation-seeking and not compensation-seeking veterans. However, as shown in Figure 1, the compensation-seeking group includes four different subgroups: people who have not filed for compensation but report they intend to, people with pending claims, people already awarded compensation, and people who sought but were denied compensation. These subgroups face potentially different contingencies that might influence treatment participation and recovery. Lumping together these groups disregards the effects of award status and may mask important distinctions among the groups. Moreover, including the "intend to seek compensation" subgroup within the compensation-seeking category is particularly problematic because this group includes people who eventually may not file a claim.

Many VA studies only made the gross distinction between compensation-seeking and not compensation-seeking and did not differentiate people according to award status. In contrast, studies of civilian MVA survivors usually differentiated people with pending and settled claims. However, most studies do not include a "claim denied" group.

Service-Connected versus Not Service-Connected

Service-connection status is often used in the veteran literature as a proxy for compensation-seeking status. This creates conceptual difficulties. The service-connected category includes both veterans seeking to increase benefits and others who are not seeking an increase or are already 100% service-connected. The "not service-connected" group also is heterogeneous: it includes people not intending to seek benefits (not compensation-seeking), people applying for benefits (compensation-pending), and people who were denied benefits (compensation-denied). Studies that analyzed service-connection status only were excluded because they posed significant interpretive problems.

The categories necessary to examine the effects of compensation-seeking on PTSD symptom course and service use include the following:

- — Not compensation-seeking: individuals who do not have disability benefits and are not in the process of applying for disability benefits.
- — Compensation pending: individuals who have submitted claims for disability or an increase in benefits that have not yet been adjudicated.
- — Compensation awarded: individuals who have been awarded claims and who are not seeking an increase in benefits.
- — Compensation denied: individuals who sought compensation but whose claims were denied.

Results

Participation in Mental Health Treatment

There were four studies of health care utilization among veterans that met inclusion criteria: two compared compensation-seeking versus not compensation-seeking veterans[5,6] and two followed compensation-seeking veterans before and after their claims were decided.[7-9]

Utilization among Compensation-Seeking versus Not Compensation-Seeking VA Patients

The studies of compensation-seekers and not compensation-seekers examined treatment utilization 1 year after an initial PTSD evaluation among treatment-seeking veterans. Both archival studies obtained service use information from the patients' electronic medical charts and retrospectively compared the health care utilization of compensation-seeking (awarded or pending) and not compensation-seeking veterans. Compensation-seeking status was assigned to those who had previously applied or were planning to apply for any VA disability compensation (i.e., medical or psychiatric).

One study[5] examined predictors of mental health and medical utilization among 87 treatment-seeking combat veterans (58 compensation-seeking and 29 not compensation-seeking). Compensation-seeking was not a significant predictor of either mental health or medical service use. The other study[6] compared the health care utilization of 35 compensation-seeking and 17 not compensation-seeking veterans and also found no significant differences in any health utilization variables except use of antidepressant medications (the not compensation-seeking group had higher antidepressant use). There was a nonsignificant trend for compensation-seeking veterans to use more PTSD services. These null findings must be interpreted with caution, as the small samples limited statistical power.

Utilization Over Time among Veterans Filing Disability Claims

Two longitudinal studies examined changes in mental health and medical utilization among compensation-seeking veterans. The first study used the design depicted in Figure 2 (N. Sayer, unpublished data).[7,8] This design allows for the examination of how treatment participation and symptom reporting changes as contingencies associated with compensation-seeking change over time.

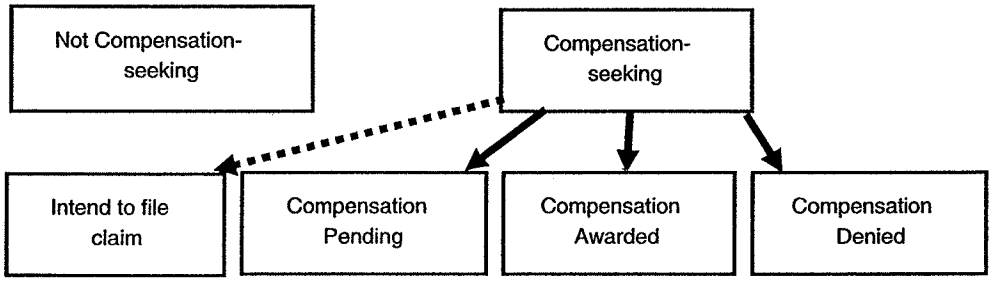

Fig. 1. Compensation status categories including both compensation-seeking status and award status.

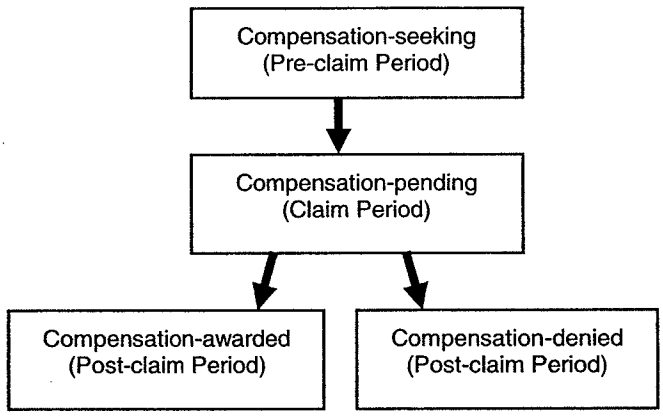

Fig. 2. Longitudinal studies comparing the health care utilization of compensation-seeking veterans before and after the claim is decided.

Health care utilization among 771 compensation-seeking veterans was examined across three time periods: preclaim (9–12 months before the compensation and pension evaluation), claim (1 month before to 2 months after the compensation and pension evaluation), and postclaim (9–12 months after evaluation). Only veterans seeking compensation for PTSD and who had previously used any type of VA medical care were included.

In the total sample, outpatient mental health visits increased sharply from preclaim to claim period. Mental health visits declined somewhat from the claim period to the postclaim period, but remained significantly higher than during the preclaim period. Medical visits increased 30% from preclaim to claim period and remained at the same level during the postclaim period.

Utilization patterns among individuals whose claims were eventually awarded (n = 452) or denied (n = 319) were examined. In the compensation-awarded group, postclaim mental health utilization was double that in the preclaim period. Postclaim mental health utilization in the compensation-denied group declined nearly by half from the preclaim period. Medical service use increased equally among veterans denied and veterans awarded PTSD disability benefits.

The second prospective study examined health care utilization 260 days before claim initiation (preclaim) and 260 days following claim determination (postnotification) among 102 veterans who applied for PTSD disability benefits between 2001 and 2003.[9] This study was not limited to veterans who previously had used VA health care (N. Sayer, unpublished data). Veterans who were awarded disability benefits (n = 61) increased their use of mental health services by ~20% after claim determination. Among those denied PTSD disability (n = 41), use of mental health services did not change significantly from pre- to postclaim period. As in the previous study, medical service use increased equally in the awarded and denied groups (50% to 78% and 59% to 77%, respectively).

These studies provide no evidence that being awarded PTSD disability compensation increases the likelihood that a veteran will drop out of treatment. Treatment utilization of veterans seeking compensation (pending and awarded) is generally equal to or greater than that of veterans who are not seeking compensation. Veterans awarded disability compensation tend to increase their use of mental health and medical services and use more services than those whose claims were denied.

Course of Recovery among Treatment-Seeking Veterans

Symptom Course among VA Patients

Two studies examined the effects of compensation-seeking on treatment outcome among VA patients.[10,11] A large program evaluation study of veterans in inpatient (n = 553) and outpatient (n = 455) treatment compared the outcome of veterans who were service-connected (i.e., awarded claims) or were seeking service-connected disability (i.e., pending claims) to a group of not compensation-seeking veterans.[10] Among inpatients, compensation-seeking veterans showed significantly less improvement on clinician-rated outcomes and marginally greater deterioration on self-reported outcomes relative to not compensation-seeking veterans. Unexpectedly, compensation-seeking inpatients (n = 532) showed less deterioration on an employment outcome (number of days worked per month) than veterans who were not seeking compensation (n = 21). It should be noted that although a weighting procedure was used to adjust for the large differences in group sizes, the results still may be less reliable because of the small number of not compensation-seeking inpatients.

Among outpatients, symptom outcomes on the Mississippi PTSD scale were better among compensation-seeking veterans than among those not seeking compensation. However, the differences in Mississippi scores were statistically but not clinically significant. There were no significant differences in other psychiatric outcome measures (clinician-administered PTSD scale, Brief Symptom Inventory, and Anxiety Sensitivity Index). Change in employment (days worked) was directionally better among outpatient compensation-seeking veterans.

The second study examined predictors of outcome in veterans who completed an 8-week residential treatment program for combat-related PTSD.[11] Three groups were compared: 36 service-connected veterans (compensation-awarded), 66 veterans applying for service connection (compensation-pending), and 39 veterans not applying for service connection (not compensation-seeking). PTSD symptoms did not change significantly in any of the groups over time, suggesting that compensation status did not influence PTSD symptom change.

Symptom Course among Non-American Veterans

One study of Israeli veterans who sought mental health treatment after the 1982 Lebanon War compared not compensation-seeking veterans to a group of veterans who applied for and were recognized as eligible for benefits (compensation-awarded).[12] The not compensation-seeking veterans were matched on demographic and other prewar factors (e.g., psychological problems and formal psychiatric diagnoses). During repeated assessments (1, 2, 3, and 8 years following the war), compensation-awarded veterans consistently had higher rates of PTSD and other psychiatric symptoms than not compensation-seeking veterans (n = 73). Furthermore, the compensation group continued to exhibit significantly greater impairment in physical, mental, vocational, and social functioning 8 years after the war.

The authors did not explicitly compare symptom change. To obtain a rough estimate of symptom course, the reported mean scores for PTSD avoidance, PTSD intrusion, and psychological distress (SCL-90) were plotted for 3 years postmilitary service. Visual inspection of these plots indicated that the groups had similar symptom trajectories.

Clearly, research examining veterans' treatment response has produced mixed results. Of two American veteran studies, one found no differences in treatment response.[11] The other found that compensation-seeking was associated with worse treatment response among inpatients, but not outpatients.[10] The study of Israeli veterans found that those who received disability benefits had more severe symptoms than those who did not seek benefits; however, both groups had similar symptom course.[12] Hence, there is no conclusive evidence that compensation-seeking veterans show less improvement after PTSD treatment than not compensation-seeking veterans.

Course of Recovery among MVA Survivors

To better comprehend the possible effects of compensation status on recovery, five studies of nonveteran MVA survivors who were involved in litigation for accident-related PTSD were included.[13–17] All of the studies collected data at two or more time points, but symptom change was not reported in two of the five studies[16,17] and cannot differentiate how much of the final outcome is explained by initial symptom severity (one group starting out sicker than the other) vs. different course of recovery (one group improving less over time).

Symptom Course among MVA Survivors

Three studies of MVA survivors examined the course of PTSD symptom change over time; thus, they directly address how compensation status predicts symptom course.

One study examined the longitudinal effects of litigation and its settlement on the mental health symptoms of MVA survivors.[13] Continuous symptom measures were used to analyze the course of symptom change for PTSD, anxiety, and depression. The compensation-pending (n = 49) and compensation-awarded (n = 18) groups had more psychological distress, PTSD, anxiety, and depression symptoms) than did the not compensation-seeking group (n = 65) at all time points. However, the three groups had similar symptom trajectories. PTSD symptom scores for all groups declined over time, and the rate of decline in all three groups did not differ (after covarying for injury severity and initial clinician-administered PTSD scale score). The authors concluded that MVA survivors who are more impaired are more likely to apply for compensation, but compensation status does not affect recovery rate.

A second MVA study examined the effects of litigation on maintenance of PTSD symptoms (N = 106).[14] There were no baseline differences between three compensation-seeking groups (compensation-pending, compensation-awarded, and not compensation-seeking) on acute stress disorder, various measures of psychopathology, or injury severity assessed shortly after the accident. Nonlitigants (n = 13) had lower rates of PTSD than the litigant groups (compensation-pending, n = 73, and compensation-awarded, n = 20) at both 6 months and 2 years, although the difference was only statistically significant at the 2-year assessment (none of the nonlitigants had PTSD). Rates of PTSD of people with pending vs. settled claims were similar at both follow-ups (30% in both awarded and pending groups at 6 months and 25% vs. 27% at 2 years, respectively). There were no work status differences among the three groups at 2 years, and as in previous studies, no differences between groups in symptom change over time.

An MVA treatment study evaluated patterns of response to cognitive behavioral group therapy in 50 MVA survivors.[15] Cluster analysis identified two groups, labeled "partial responders" (n = 20) and "responders" (n = 30). The two groups did not statistically differ in the percentage of patients involved in litigation related to the accident (80% partial responders and 95% responders) or receipt of disability payments (35% of partial responders and 17% of responders).

Two additional studies examined the prevalence of PTSD among community samples of MVA survivors.[16,17] Although these studies examined how compensation status was associated with PTSD prevalence (i.e., whether someone is more or less likely to develop PTSD) at different time points, they did not examine whether compensation status predicted rate of recovery from PTSD.

One study compared the outcomes of MVA survivors who had pending (n = 5) or settled (awarded) claims (n = 53) or who had withdrawn their claims (n = 6).[16] Both the awarded and the pending groups had more psychological distress 5 years after the accident than did the not compensation-seeking group and those who withdrew their claims. The second prevalence study examined the association between compensation-seeking and screening positive for PTSD 3 months and 1 year after an MVA (n = 967).[17] Prevalence was higher among compensation-seeking survivors at both time points: 15% and 8%, respectively, in the not compensation-seeking group vs. 31% and 25% in the compensation-seeking group. The 1-year PTSD prevalence in the compensation-pending group (29%) was higher than among those who had settled, dropped, or not filed claims combined (10%).

There is no conclusive evidence that compensation-seeking is associated with impaired recovery from PTSD among MVA survivors. Like the studies of veterans, MVA studies show that symptoms are greater in survivors who seek compensation or engage in litigation relative to survivors who do not. However, the three studies that explicitly analyzed longitudinal changes in PTSD symptoms found no effect of compensation status on course of recovery.[13–15] The lack of difference should be interpreted with caution because some subgroups in these studies were small. However, differences in scale scores among the groups were rather small, suggesting that the differences were truly nonsignificant and not due to a lack of statistical power.

Discussion

Despite limitations in the current literature, the health care utilization data are relatively consistent. There were generally no differences in health care utilization between compensation-seeking and not compensation-seeking veterans. Among veterans who were seeking compensation, compensation-awarded veterans' participation in mental health treatment tended to increase rather than decrease after they were granted service connection. This suggests that individuals who most needed help and were awarded free service-connected care appropriately increased their use of mental health services. These results contradict the findings of the VA OIG, which concluded that veterans sharply decreased their use of mental health services once they were 100% service-connected.[1]

In contrast to those awarded claims, veterans with denied claims had stable or decreased use of mental health services

during the postclaim period.[7-9] Lower utilization among people who are denied claims suggests that either these were less impaired individuals with less need for care, that their service use decreased because denial of service connection reduced their access to free care, or that some of them may have been malingering.

Studies of veterans' treatment outcomes produced contradictory findings, making it difficult to draw conclusions. It is premature to assume that compensation-seeking predicts worse outcomes. One study found no differences between compensation-seeking and not compensation-seeking groups,[11,12] perhaps due to small sample sizes, and the other study produced mixed results showing effects among inpatients but not outpatients.[10] Perhaps the most severe cases (compensation-seeking inpatients) respond less well to treatment.

Three of the MVA studies examined PTSD symptoms over time and found that improvement of PTSD symptoms in the compensation-seeking group was similar to that of the not compensation-seeking group.[13-15] Other studies confirmed that more impaired people were more likely to file claims, but did not examine symptom course.[16,17]

Directions for Future Research

The existing research on the effects of seeking compensation on PTSD symptoms and health care use has lacked a clear framework, probably because in most studies, compensation-seeking was not the primary focus. Consequently, not much thought has been given to the construct and its potential correlates. The lack of a clear framework greatly limits the conclusions that can be drawn from this small body of research.

One particular challenge is differentiating the effects of exaggeration from the effects of initial symptom severity. People who have more severe symptoms might be more likely to both seek and be awarded compensation. In addition, initial symptom severity is related to poor treatment outcome[18] and treatment dropout.[19] Thus, higher symptom severity and lesser symptom reduction among veterans seeking or awarded PTSD compensation cannot automatically be presumed to reflect fabrication or exaggeration. To strengthen research in this area, we propose the following steps:

Establish Clear and Consistent Definitions of Compensation Status

It is important to distinguish among people who have pending, awarded, and denied compensation claims.

Increase Statistical Power by Having Adequate Sample Sizes

Most people seeking treatment for PTSD also seek compensation. Therefore, it may be necessary to intentionally oversample not compensation-seeking veterans to obtain adequate statistical power.

For Studies of Recovery or Treatment Response, Perform Longitudinal Statistical Comparisons That Account for Baseline Differences among Groups

Factors that may be related to both health care utilization and compensation status (e.g., access to care and symptom severity) should be considered as potential confounders or mediators. Funded research examining symptoms and functioning over time among veterans awarded and denied PTSD claims is underway (http://vaww.hsrd.research.va.gov/research/abstracts/IIR_01-188.htm).[20]

Examine Geographically and Demographically Diverse Samples and Identify Potential Moderators of the Effect of Compensation Status on Treatment Participation and Recovery

There are regional variations in rates of awarded disability claims[21] and there appears to be a "combat injury bias" in rates of awarded disability claims that affect women more than men.[22,23] Furthermore, both African American and women veterans are less likely than other veterans to obtain VA PTSD disability benefits.[24]

Explore Mediators of the Effects of Compensation Status on Recovery

Nearly all studies have treated compensation status as a "black box" variable, without attempting to test the mechanisms through which compensation-seeking might influence outcomes. There are several mechanisms that might mediate any relationship between compensation status and either treatment participation or mental health outcomes, such as symptom exaggeration,[25,26] internalized stigma,[27] the stress associated with applying for compensation,[8,28] unmet economic needs,[29] and losing the psychological benefits of employment.[30-32]

To help improve veterans' treatment outcomes, it is necessary to identify and examine specific mediating factors involved with seeking or receiving disability compensation that might hinder or facilitate treatment participation and recovery from PTSD. It is important for VA to prioritize research on the PTSD claims process and the effects of compensation status on both individual veterans and the VA as a whole. Obstacles at the system level that hinder research in this area should be identified and reduced. A possible mechanism for this could be the creation of a task force modeled after the task force that developed a plan for women's health research in the VA.[33] VA and Veterans Benefits Administration could collaborate by sharing both resources and databases to facilitate better research on the health effects of being involved in the VA disability program.

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